

ABSTRACT OF THE DISCLOSURE

Methods for acquiring a public land mobile network (PLMN) of a mobile station and providing PLMN information of a base station in a cellular communication system and a base station capable of guaranteeing an acquisition of a home PLMN for registering a mobile station in a home base station which forms an overlapped signal cell together with a base station operated by a second business operator using the same frequency. It is determined whether a corresponding base station is a home PLMN. Cell overlapped information is extracted from the system information when the corresponding base station is not the home PLMN. The cell overlapped information indicates that the home base station forms an overlapped cell together with the base station operated by the second business operator. A PLMN acquisition procedure for different slot synchronizations with respect to an identical frequency is executed based on the cell overlapped information.